## REMARKS

Applicant respectfully requests the Examiner's reconsideration of the present application.

Claims 1-9, 11-15, 17-23, 25-27, 29-35, 37-50 are pending in the present application.

Claims 14-15, 17-23, 25-27, 29-35, and 37-50 are objected to because of informalities.

Claims 1-9, 11-15, 17-23, 25-27, and 29-32 are rejected under 35 U.S.C. §101.

Claims 33-35 and 37-50 are indicated to be allowable if rewritten or amended to overcome the claim objections set forth.

Claims 1, 6, 14, 26, 33, 39, and 46 have been amended.

Support for amended claims 1, 6, 14, 26, 33, 39, and 46 can be found at pages 10-28, and Figures 1-2, and 6-10 in the Drawings.

Claims 14-15, 17-23, 25-27, 29-35, and 37-50 are objected to because of informalities.

Specifically, the Office state in part that

In claim 14, line 3, "where n is" should be "wherein n and L are".

In claim 26, line 3, "where n is" should be "wherein n and L are" and define "d".

In claim 33, line 5, "where n is" should be "wherein n and L are" and define "d".

In claim 39, line 5, "where n is" should be "wherein n and L are" and define "d".

In claim 46, line 4, "where n is" should be "wherein n and L are".

(12/2/2008 Office Action, p. 2).

Claim 14 has been amended to include the limitation "wherein n and L are greater than 1".

Claim 26 has been amended to include the limitation "wherein n and L are greater than 1". Applicant submits that the term "d" has already been defined in claim 26. Applicant refers the Office to lines 4 and 14 of Claim 26.

Claim 33 has been amended to include the limitation "wherein n and L are greater than 1". Applicant submits that claim 33 does not include a term "d" to define.

Claim 39 has been amended to include the limitations "wherein n and L are greater than 1" and "wherein d is greater than 1".

Claim 46 has been amended to include the limitation "wherein n and L arc greater than 1".

In view of the amendment to claims 14, 26, 33, 39, and 46, Applicant submits that the objections to claims 33-35, and 37-50 have been overcome.

Claims 1-9, 11-15, 17-23, 25-27, and 29-32 are rejected under 35 U.S.C. §101. Specifically, the Office has stated in part that

Claim(s) 1-9, 11-15, 17-23, 25-27, 29-32 are rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing ... The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

In each of the independent claims above, the claims recite what appears to be a series of steps. However, the steps are not tied to another statutory class, such as a hardware performing any one of the steps. Therefore, the claims are directed to non-statutory subject matter.

(12/2/2008 Office Action, pp. 2-3) (Emphasis Added).

Applicant submits that the United States Court of Appeals, Federal Circuit has articulated recently that "A patent claim that is tied to a particular machine or brings about a particular transformation of a particular article does not pre-empt all uses of a fundamental principle in any field but rather is limited to a particular use, a specific application; therefore, it is not drawn to the principle in the abstract" In re Bilski, 545 F.3d 943, 954 (Fed.Cir.2008).

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Applicant submits that claims 1-9, 11-15, 17-23, 25-27, and 29-32 are tied to a particular machine. Each of the claims recite specific hardware limitations that tie it to a particular machine. For example, claim 6 recites "a plurality of code sequence registers" where a first group and second group of coefficients are loaded. Claim 6 also recites "a plurality of sample sequence registers" where a first group and second group of contiguous sample values are loaded. Both the code sequence registers and sample sequence registers are hardware and are illustrated as blocks 120 and 140 in Figure 1, blocks 201-206 and 211-219 in Figure 2. Claims 1, 14, and 26 also include hardware limitations such as "code sequence registers" and "sample sequence registers". Applicant submits that claims 1-9, 11-15, 17-23, 25-27, and 29-32 satisfy the requirements of being statutory subject matter under 35 U.S.C. §101.

In view of the amendments and arguments set forth herein, it is respectfully submitted that the applicable rejections and have been overcome. Accordingly, it is respectfully submitted that claims 1-9, 11-15, 17-23, 25-27, 29-35, 37-50 should be found to be in condition for allowance.

The Examiner is invited to telephone Applicant's attorney (217-377-2500) to facilitate prosecution of this application.

If any additional fee is required, please charge Deposit Account No. 50-1624.

Respectfully submitted,

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